



59157.8007.US01 Fusion Proteins for Targeted Delivery of Antimicrobial Peptides).ST25.txt
SEQUENCE LISTING

<110> THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

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Anderson, Maxwell
Qi, Fengxia

<120> ANTI-MICROBIAL TARGETING CHIMERIC PHARMACEUTICAL

<130> 59157.8007.US01

<150> US 09/910,358

<151> 2001-07-19

<150> US 09/378,577

<151> 1999-08-20

<160> 31

<170> PatentIn version 3.1

<210> 1

<211> 563

<212> DNA

<213> Artificial sequence

<220>

<223> Synthesized using sequential PCR techniques

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accactcgca cagaggatac tctggtggcg gtggctcggg cggagggtggg tcgggtggcg	180
gcggatccga cgtgaagctt gtggagtctg ggggaggctt agtgaaccct ggagggtccc	240
tgaaactctc ctgtgcagcc tctggattca ctttcagtag ctataccatg tcttgggttc	300
gccagactcc ggagaagagg ctggagtggg tcgcatccat tagtagtggt ggtacttaca	360
cctactatcc agacagtgtg aagggccgat tcaccatctc cagagacaat gccaagaaca	420
ccctgtacct gcaaatagacc agtctgaagt ctgaggacac agccatgtat tactgttcaa	480
gagatgacgg ctctacggc tcctattact atgctatgga ctactggggg caaggaacct	540
cagtcaccgt ctcttcagct agc	563

<210> 2

<211> 24

<212> PRT

<213> Artificial sequence

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<223> Synthesized using sequential PCR techniques

<400> 2

Asp Ser His Ala Lys Arg His His Gly Tyr Lys Arg Lys Phe His Glu
1 5 10 15

Lys His His Ser His Arg Gly Tyr
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<210> 3
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized using sequential PCR techniques

<400> 3

ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 4
<211> 165
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized using sequential PCR techniques

<400> 4

Asp Ser His Ala Lys Arg His His Gly Tyr Lys Arg Lys Phe His Glu
1 5 10 15

Lys His His Ser His Arg Gly Tyr Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser Gly Gly Gly Gly Ser Asp Val Lys Leu Val Glu Ser Gly
35 40 45

Gly Gly Leu Val Asn Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala
50 55 60

Ser Gly Phe Thr Phe Ser Ser Tyr Thr Met Ser Trp Val Arg Gln Thr
65 70 75 80

Pro Glu Lys Arg Leu Glu Trp Val Ala Ser Ile Ser Ser Gly Gly Thr
85 90 95

Tyr Thr Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
100 105 110

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Thr Ser Leu Lys Ser
115 120 125

Glu Asp Thr Ala Met Tyr Tyr Cys Ser Arg Asp Asp Gly Ser Tyr Gly
130 135 140

Ser Tyr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr
145 150 155 160

Val Ser Ser Ala Ser
165

<210> 5
<211> 533
<212> DNA
<213> Artificial sequence

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gtggctcggg cggaggtggg tcgggtggcg gcggatccga cgtgaagctt gtggagtctg 180
ggggaggctt agtgaaccct ggagggtccc tgaaactctc ctgtgcagcc tctggattca 240
ctttcagtag ctataccatg tcttgggttc gccagactcc ggagaagagg ctggagtggg 300
tcgcatccat tagtagtggt ggtacttaca cctactatcc agacagtgtg aagggccgat 360
tcaccatctc cagagacaat gccaagaaca ccctgtacct gcaaatagacc agtctgaagt 420
ctgaggacac agccatgtat tactgttcaa gagatgacgg ctcttacggc tcctattact 480
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<210> 6
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized using sequential PCR techniques

<400> 6

Lys Arg Leu Phe Lys Glu Leu Lys Phe Ser Leu Arg Lys Tyr
1 5 10

<210> 7
<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized using sequential PCR techniques

<400> 7

Lys Arg Leu Phe Lys Glu Leu Lys Phe Ser Leu Arg Lys Tyr Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Val
20 25 30

Lys Leu Val Glu Ser Gly Gly Gly Leu Val Asn Pro Gly Gly Ser Leu
35 40 45

Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Thr Met
50 55 60

Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val Ala Ser
65 70 75 80

Ile Ser Ser Gly Gly Thr Tyr Thr Tyr Tyr Pro Asp Ser Val Lys Gly
85 90 95

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln
100 105 110

Met Thr Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys Ser Arg
115 120 125

Asp Asp Gly Ser Tyr Gly Ser Tyr Tyr Tyr Ala Met Asp Tyr Trp Gly
130 135 140

Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser
145 150 155

<210> 8

<211> 89

<212> DNA

<213> Artificial sequence

<220>

<223> Primer 986

<400> 8

caccactcgc acagaggata ctctggtggc ggtggctcgg gcggaggtgg gtcgggtggc 60

ggcggatccg acgtgaagct tgtggagtc 89

<210> 9

<211> 84

<212> DNA

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<223> Primer 987

<400> 9

ggtgtccagt gtgatagcca cgctaagcgg caccacggat ataagcggaa gttccacgag 60

aagcaccact cgcacagagg atac 84

<210> 10

<211> 74

<212> DNA

<213> Artificial sequence

<220>

<223> Primer 988

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ccagtgtgat agcc 74

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<211> 87

<212> DNA

<213> Artificial sequence

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<223> Primer 989

<400> 11

gttcagcctg cgcaagtact ctggtggcgg tggctcgggc ggaggtgggt cgggtggcgg 60

cggatccgac gtgaagcttg tggagtc 87

<210> 12

<211> 69

<212> DNA

<213> Artificial sequence

<220>

<223> Primer 990

<400> 12

gtccttactt taaaagggtgt ccagtgtgtaag cggctgttta aggagctcaa gttcagcctg 60

cgcaagtac 69

<210> 13

<211> 65

<212> DNA

<213> Artificial sequence

<220>

<223> Primer 991

<400> 13

ggatatccac catggacttc gggttgagct tgggttttcct tgtccttact ttaaaagggtg 60

tccag 65

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<210> 14
 <211> 39
 <212> DNA
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<220>
 <223> Primer 452

<400> 14
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<210> 15
 <211> 18
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Protegrin PG-1

<400> 15
 Arg Gly Gly Arg Leu Cys Tyr Cys Arg Arg Arg Phe Cys Val Cys Val
 1 5 10 15

Gly Arg

<210> 16
 <211> 57
 <212> DNA
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<220>
 <223> Protegrin PG-1

<400> 16
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<210> 17
 <211> 18
 <212> PRT
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<220>
 <223> Novispirin G10

<400> 17
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 1 5 10 15

Tyr Gly

<210> 18
 <211> 36

59157.8007.US01 Fusion Proteins for Targeted Delivery of Antimicrobial Peptides).ST25.txt

<212> DNA

<213> Artificial sequence

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<223> Forward primer 1

<400> 18

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36

<210> 19

<211> 23

<212> DNA

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<223> Reverse primer 2

<400> 19

ccggatcctc gtccgacaca gac

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<210> 20

<211> 23

<212> DNA

<213> Artificial sequence

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<223> Forward primer 3

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<210> 21

<211> 26

<212> DNA

<213> Artificial sequence

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<223> Reverse primer 4

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<210> 22

<211> 23

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<223> Forward primer 5

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ggatcgatgt tgtgatgacc cag

23

<210> 23

<211> 31

<212> DNA

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<220>

<223> Reverse primer 6

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<210> 24

<211> 29

<212> DNA

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<223> Forward primer 7

<400> 24

gcgggtcgac gtgaagctgg tggagtctg

29

<210> 25

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> Reverse primer 8

<400> 25

gggtgttgag ctagctgaag agacggtgac

30

<210> 26

<211> 24

<212> PRT

<213> Artificial sequence

<220>

<223> Linker 2

<400> 26

Leu Asp Pro Lys Ser Cys Glu Arg Ser His Ser Cys Pro Pro Cys Gly
1 5 10 15

Gly Gly Ser Gly Gly Gly Thr Ser
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<210> 27

<211> 72

<212> DNA

<213> Artificial sequence

<220>

<223> Linker 2

<400> 27

ctcgacccaa agagctgcga gcggagccac agctgcccac cgtgcggggg tgggtccggc

60

ggtggcacta gt

72

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<210> 28
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<212> DNA
<213> Artificial sequence

<220>
<223> Forward primer 9

<400> 28
gtgggctagc ctcgacccaa agagctgc 28

<210> 29
<211> 38
<212> DNA
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<220>
<223> Reverse primer 10

<400> 29
aggttctcgg ggctgcccac tagtgccacc gccggacc 38

<210> 30
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> Forward primer 11

<400> 30
gggcagcccc gagaacaac 19

<210> 31
<211> 33
<212> DNA
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<223> Reverse primer 12

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ggtggtctgc agtttaccgc gggacaggga gag 33